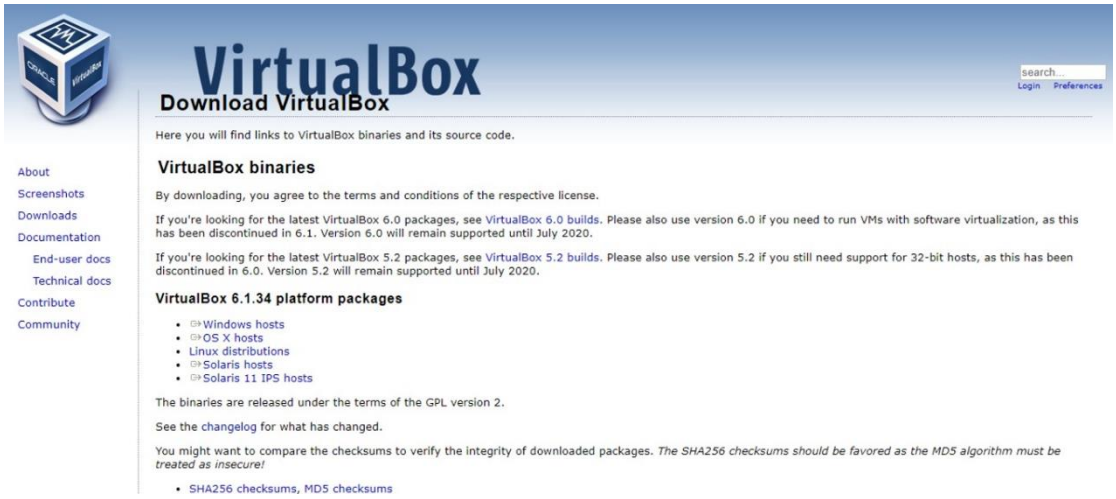
Installing ROS on Ubuntu

first step is to download Virtual Box:

VirtualBox is a general-purpose full virtualizer for x86 hardware, targeted at server, desktop and embedded use, VirtualBox is being actively developed with frequent releases and has an ever growing list of features, supported guest operating systems and platforms it runs on. VirtualBox is a community effort backed by a dedicated company: everyone is encouraged to contribute while Oracle ensures the product always meets professional quality criteria.

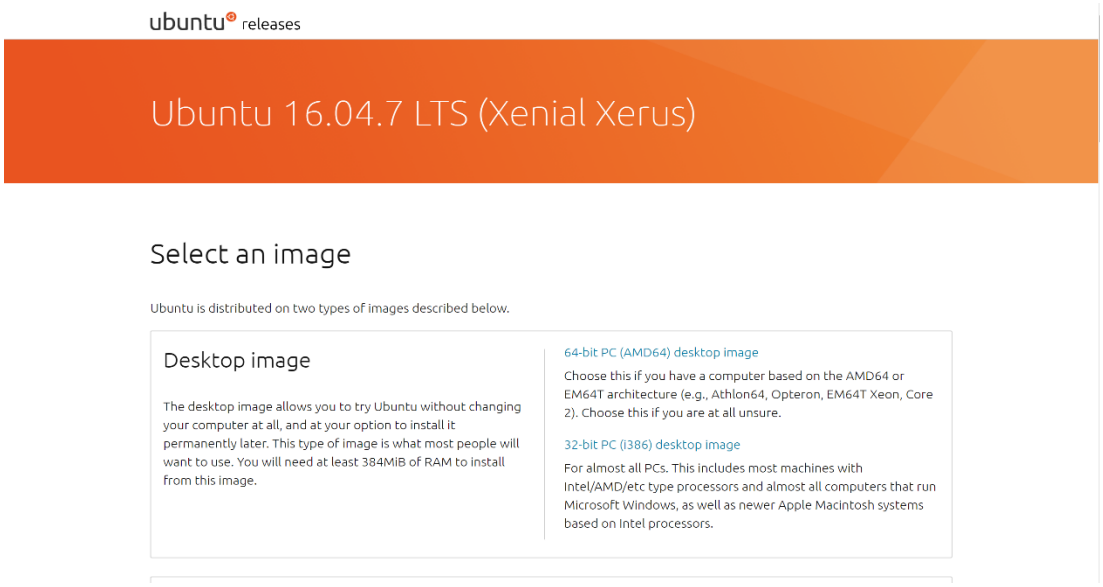
(https://www.virtualbox.org/wiki/Downloads)



now after download VirtualBox you can download and run any OS you like through it.

Second step is to Download Ubuntu:

Ubuntu Desktop is a Linux distribution and we need it for our next projects Ubuntu Desktop will be in disk image format



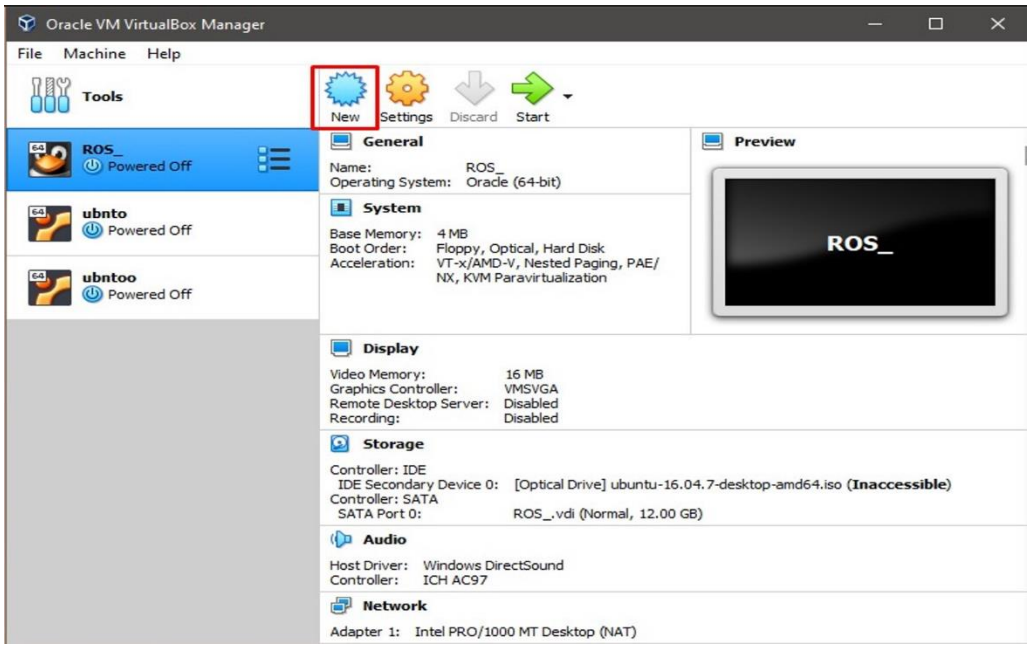
(https://releases.ubuntu.com/16.04/)

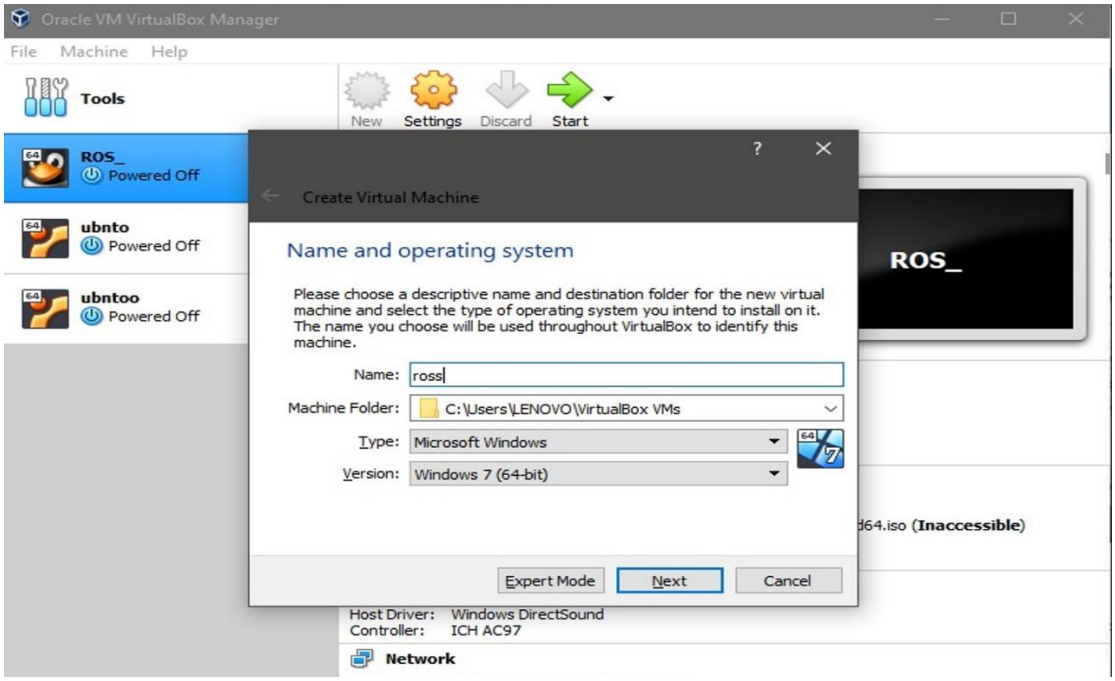
Third step is to create a new virtual machine:

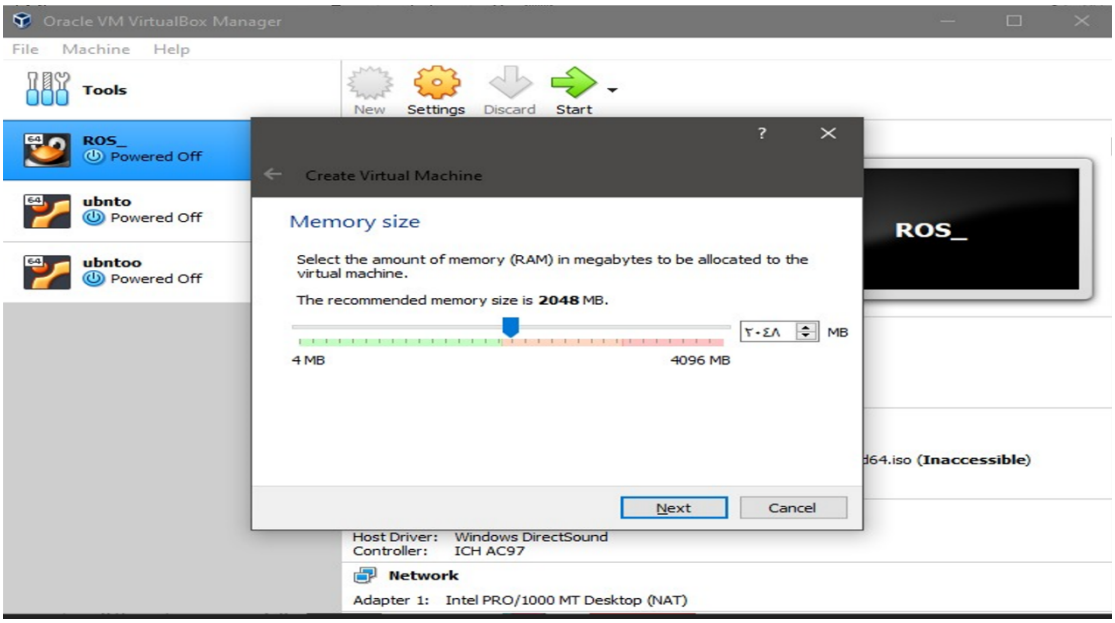
1- Press New

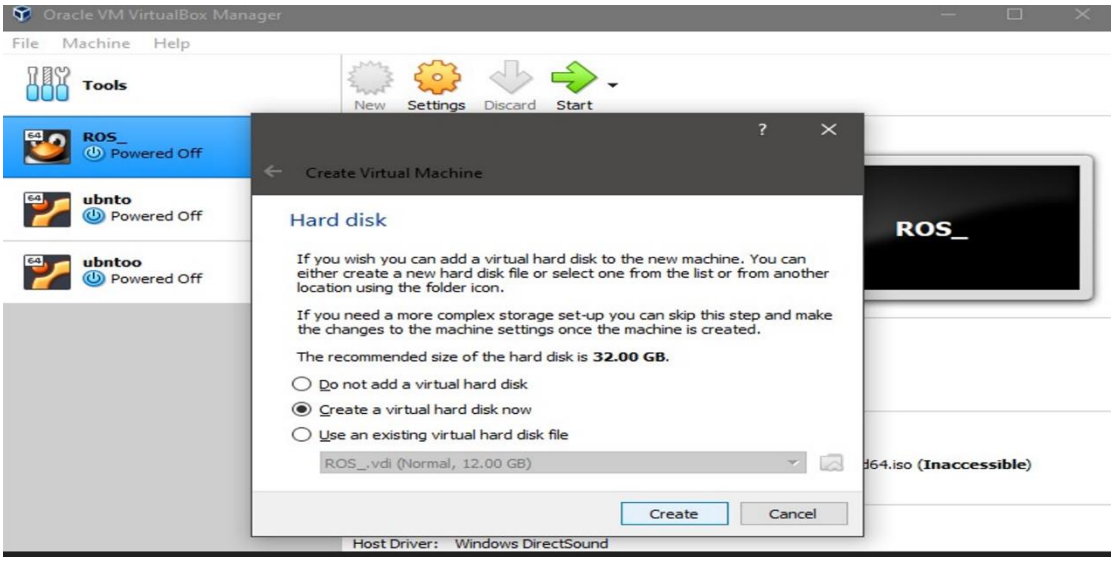
2- name New System

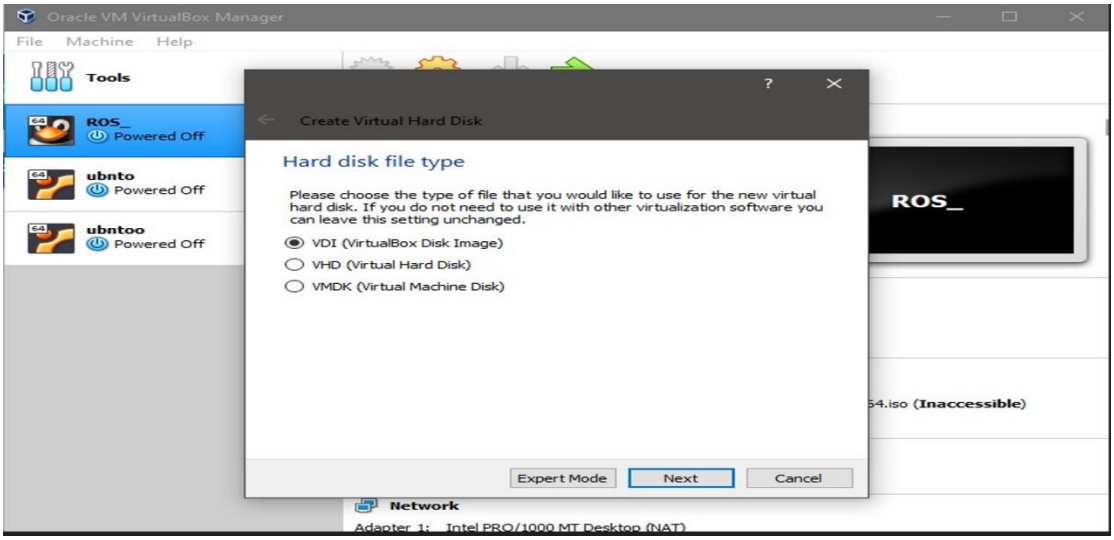
3- choose the largest memory size possible

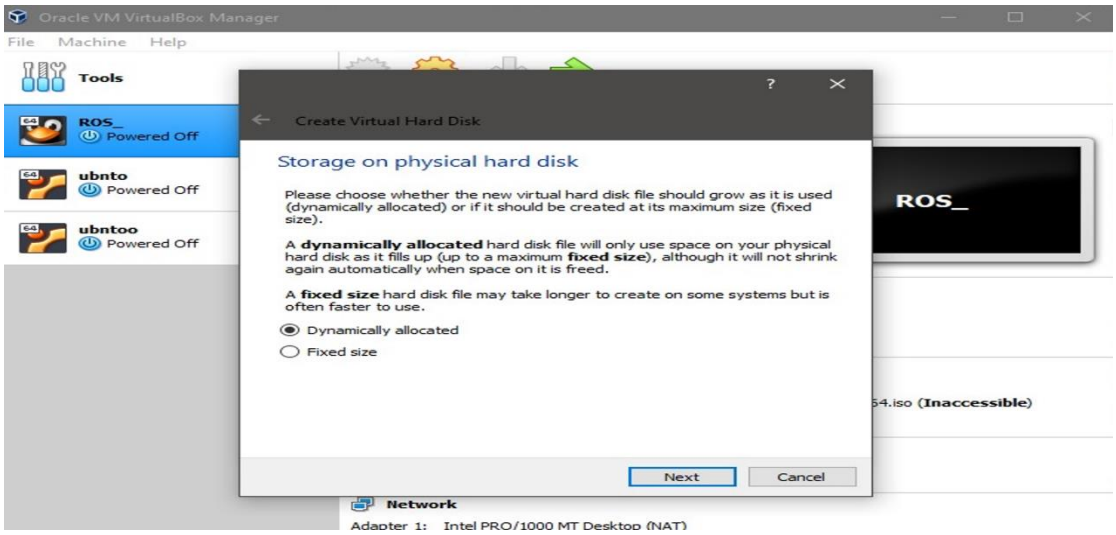


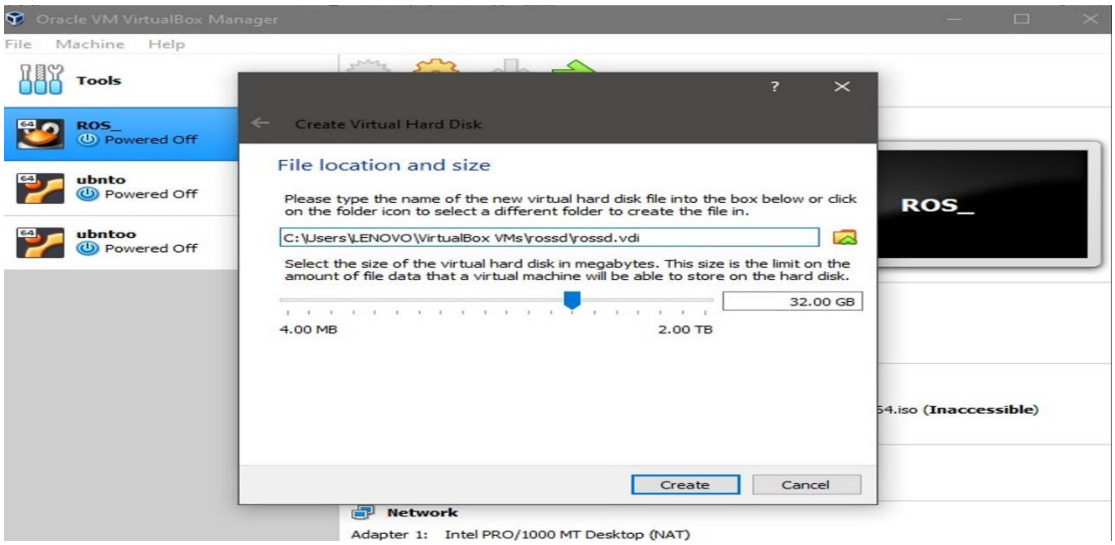

Oracle VM VirtualBox Manager
File Machine Help
Tools
New Settings Discard Start
ROS_
Powered Off
ubnto
Powered Off
ubntoo
Powered Off
Create Virtual Machine
Name and operating system
Please choose a descriptive name and destination folder for the new virtual machine and select the type of operating system you intend to install on it. The name you choose will be used throughout VirtualBox to identify this machine.
Name: ross
Machine Folder: C:\Users\LENOVO\VirtualBox VMs
Type: Microsoft Windows
Version: Windows 7 (64-bit)
Expert Mode
Next
Cancel
ROS_
d64.iso (Inaccessible)
Host Driver: Windows DirectSound
Controller: ICH AC97
Network


Oracle VM VirtualBox Manager
File Machine Help
Tools
New Settings Discard Start
ROS_
Powered Off
ubnto
Powered Off
ubntoo
Powered Off
Create Virtual Machine
Memory size
Select the amount of memory (RAM) in megabytes to be allocated to the virtual machine.
The recommended memory size is 2048 MB.
٢٠٤٨ MB
4 MB
4096 MB
Next
Cancel
ROS_
d64.iso (Inaccessible)
Host Driver: Windows DirectSound
Controller: ICH AC97
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)

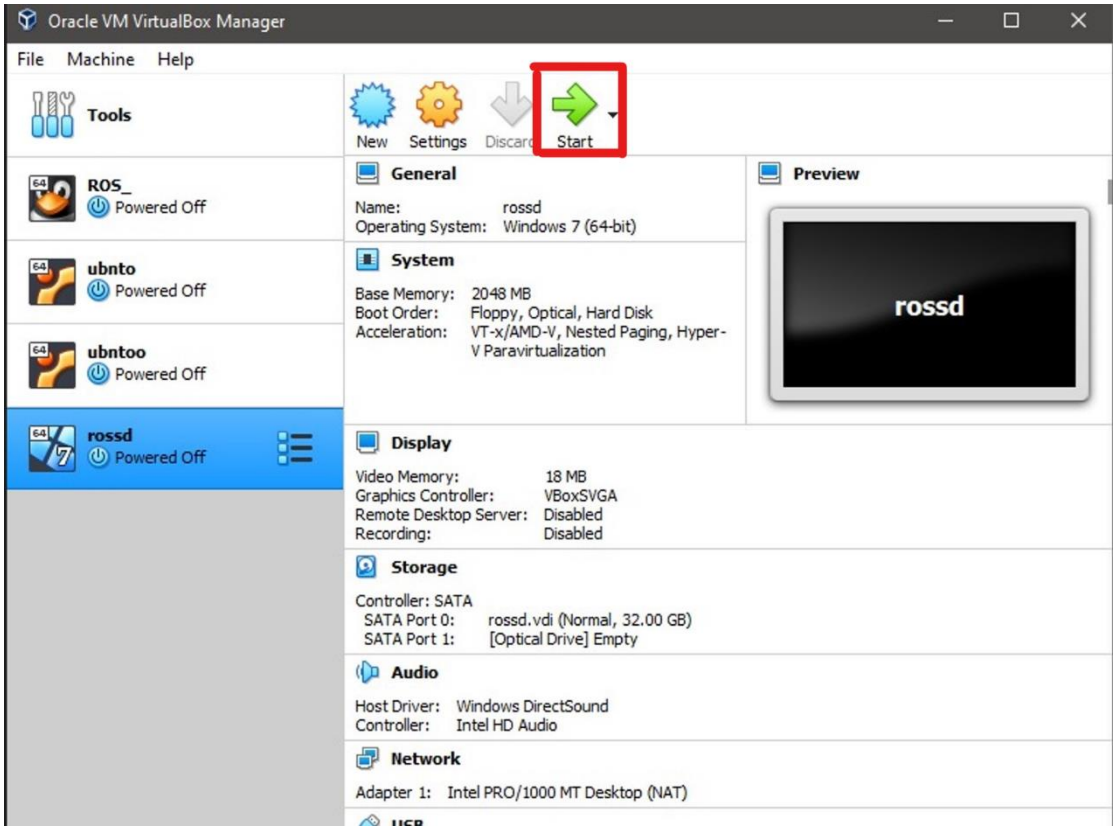

Oracle VM VirtualBox Manager
File Machine Help
Tools
New Settings Discard Start
ROS_
Powered Off
ubnto
Powered Off
ubntoo
Powered Off
Create Virtual Machine
Hard disk
If you wish you can add a virtual hard disk to the new machine. You can either create a new hard disk file or select one from the list or from another location using the folder icon.
If you need a more complex storage set-up you can skip this step and make the changes to the machine settings once the machine is created.
The recommended size of the hard disk is 32.00 GB.
Do not add a virtual hard disk
Create a virtual hard disk now
Use an existing virtual hard disk file
ROS_.vdi (Normal, 12.00 GB)
Create
Cancel
ROS_
d64.iso (Inaccessible)
Host Driver: Windows DirectSound


Oracle VM VirtualBox Manager
File Machine Help
Tools
ROS_
Powered Off
ubnto
Powered Off
ubntoo
Powered Off
Create Virtual Hard Disk
Hard disk file type
Please choose the type of file that you would like to use for the new virtual hard disk. If you do not need to use it with other virtualization software you can leave this setting unchanged.
VDI (VirtualBox Disk Image)
VHD (Virtual Hard Disk)
VMDK (Virtual Machine Disk)
Expert Mode
Next
Cancel
ROS_
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)

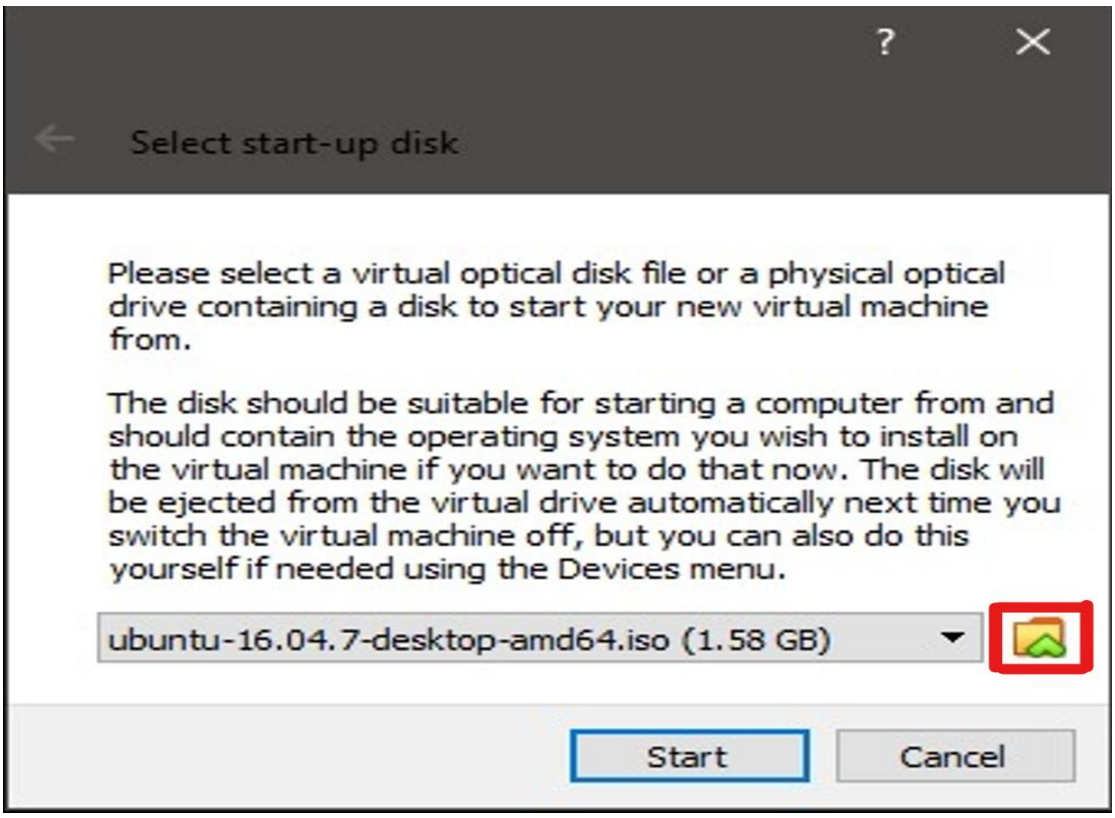

Oracle VM VirtualBox Manager
File Machine Help
Tools
ROS_
Powered Off
ubnto
Powered Off
ubntoo
Powered Off
Create Virtual Hard Disk
Storage on physical hard disk
Please choose whether the new virtual hard disk file should grow as it is used (dynamically allocated) or if it should be created at its maximum size (fixed size).
A dynamically allocated hard disk file will only use space on your physical hard disk as it fills up (up to a maximum fixed size), although it will not shrink again automatically when space on it is freed.
A fixed size hard disk file may take longer to create on some systems but is often faster to use.
Dynamically allocated
Fixed size
Next
Cancel
ROS_
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)


Oracle VM VirtualBox Manager
File Machine Help
Tools
ROS_
Powered Off
ubnto
Powered Off
ubntoo
Powered Off
Create Virtual Hard Disk
File location and size
Please type the name of the new virtual hard disk file into the box below or click on the folder icon to select a different folder to create the file in.
C:\Users\LENOVO\VirtualBox VMs\rossd\rossd.vdi
Select the size of the virtual hard disk in megabytes. This size is the limit on the amount of file data that a virtual machine will be able to store on the hard disk.
32.00 GB
4.00 MB
2.00 TB
Create
Cancel
ROS_
Network
Adapter 1: Intel PRO/1000 MT Desktop (NAT)

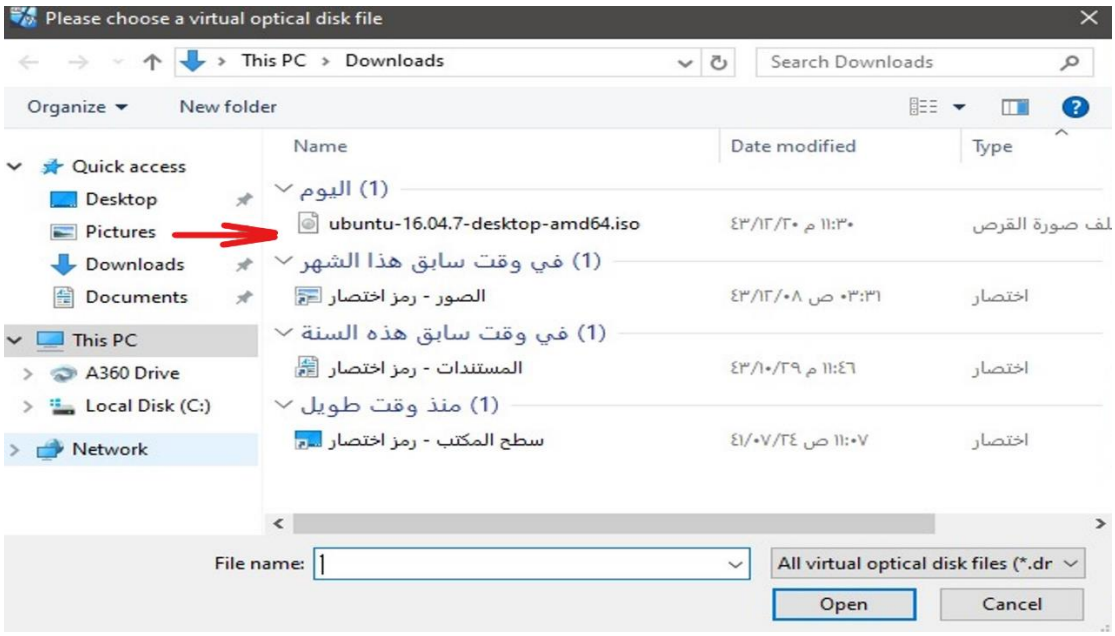
Fourth step Press start to start the new virtual machine:



Choose the new Ubuntu file that you downloaded earlier

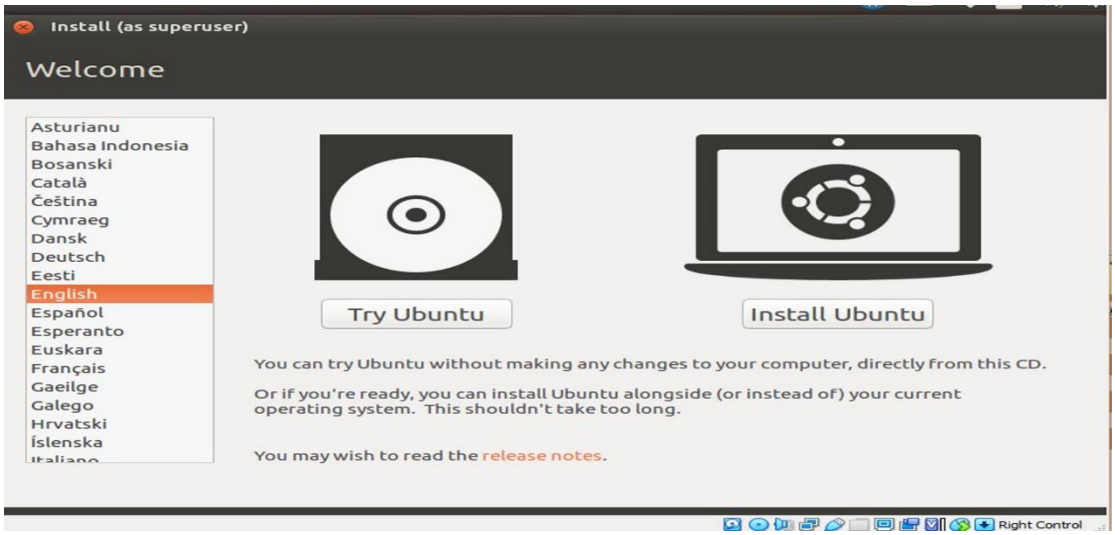



Optical Disk Selector
Medium
Add
Create
Refresh
Name
Virtual Size
Attached
ubuntu-16.04.7-desktop-amd64.iso
1.58 GB
ubuntu-22.04-desktop-amd64.iso
--
Search By Name
Choose
Leave Empty
Cancel

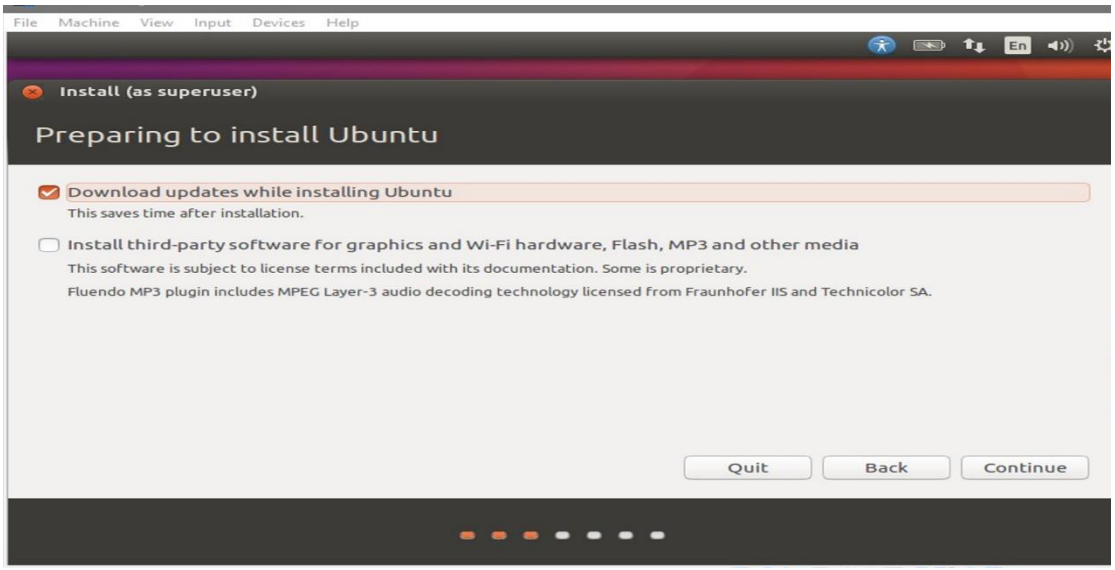

Please choose a virtual optical disk file
This PC
Downloads
Search Downloads
Organize
New folder
Quick access
Desktop
Pictures
Downloads
Documents
This PC
A360 Drive
Local Disk (C:)
Network
Name
Date modified
Type
اليوم (1)
ubuntu-16.04.7-desktop-amd64.iso
في وقت سابق هذا الشهر (1)
الصور - رمز اختصار
في وقت سابق هذه السنة (1)
المستندات - رمز اختصار
منذ وقت طويل (1)
سطح المكتب - رمز اختصار
File name:
All virtual optical disk files (*.dr
Open
Cancel

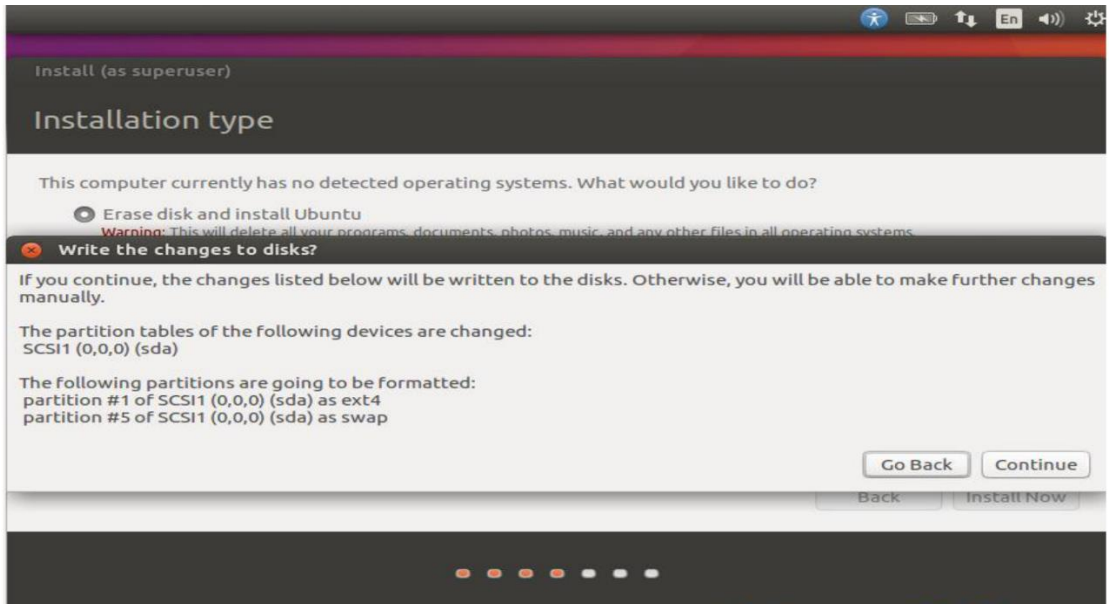

Select start-up disk
Please select a virtual optical disk file or a physical optical drive containing a disk to start your new virtual machine from.
The disk should be suitable for starting a computer from and should contain the operating system you wish to install on the virtual machine if you want to do that now. The disk will be ejected from the virtual drive automatically next time you switch the virtual machine off, but you can also do this yourself if needed using the Devices menu.
ubuntu-16.04.7-desktop-amd64.iso (1.58 GB)
Start
Cancel

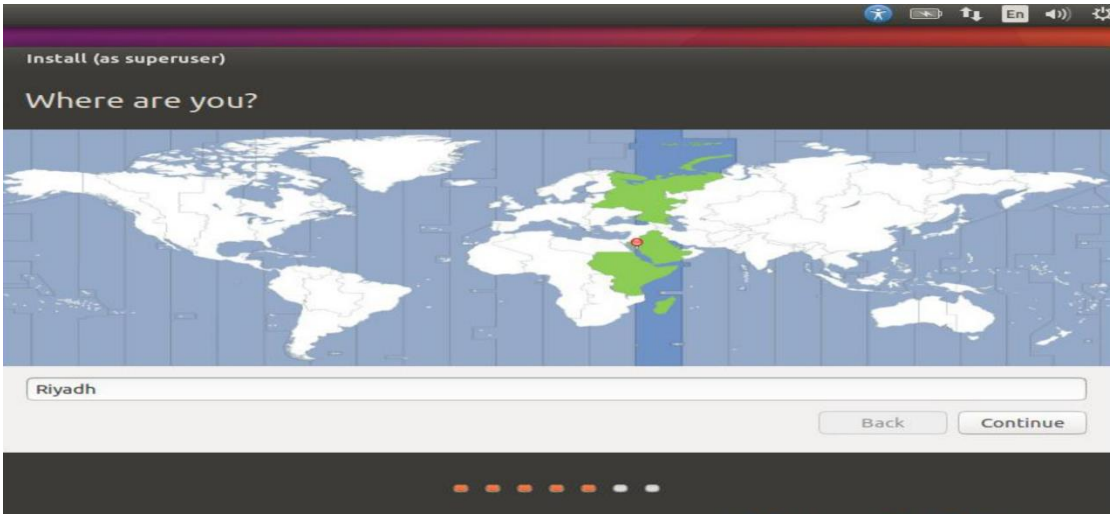
next you can select your language then press "Install Ubuntu"

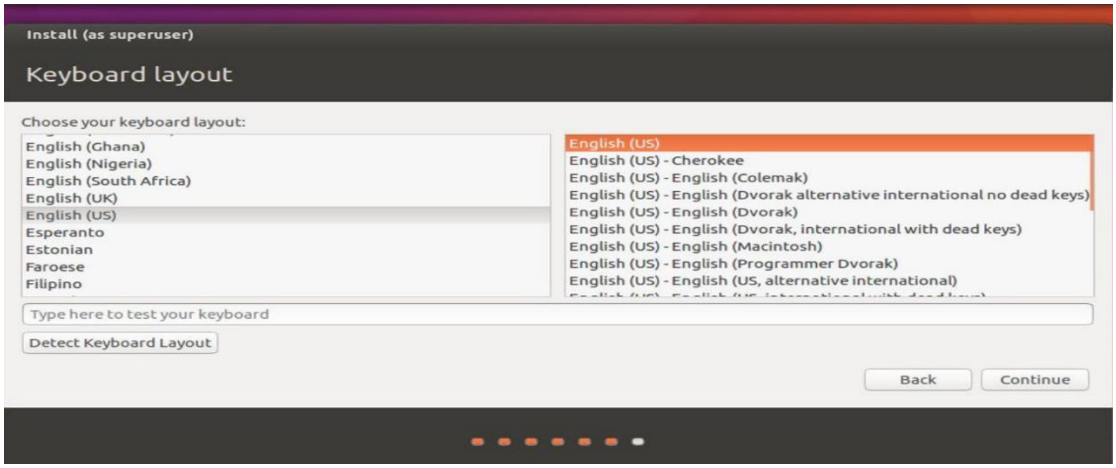


Complete the steps as shown

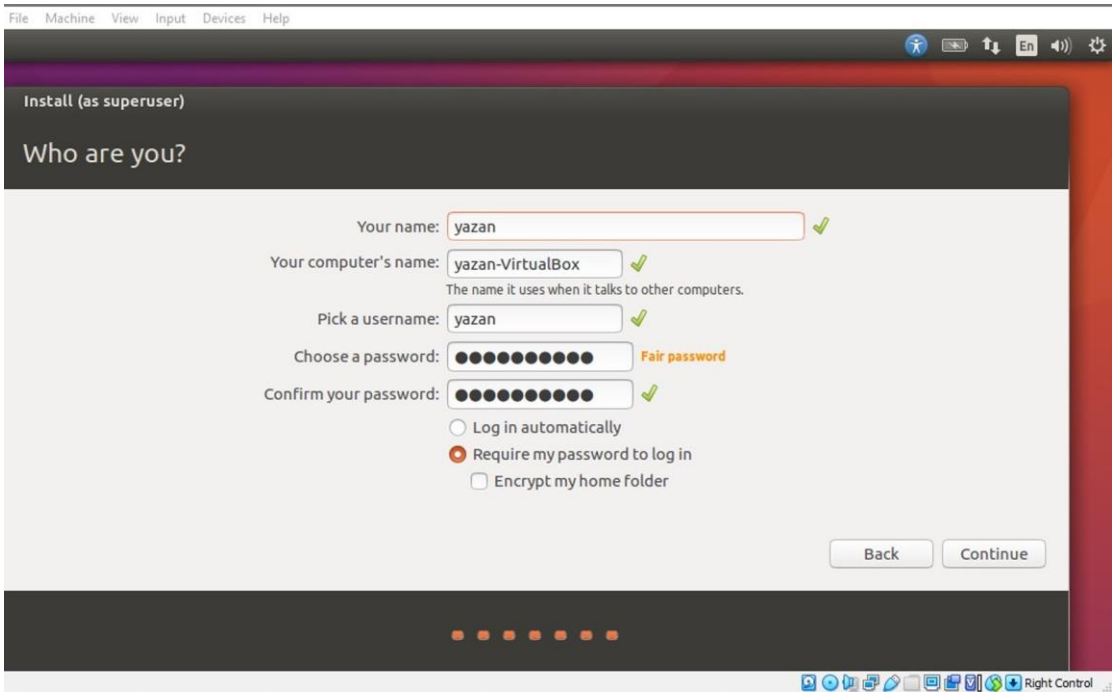




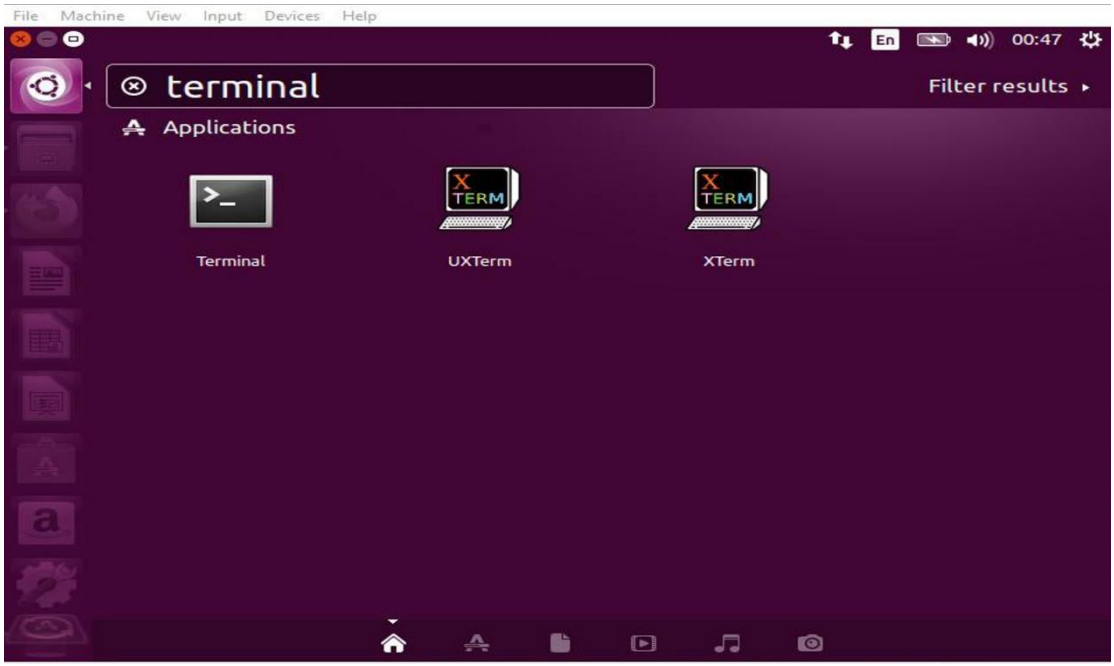


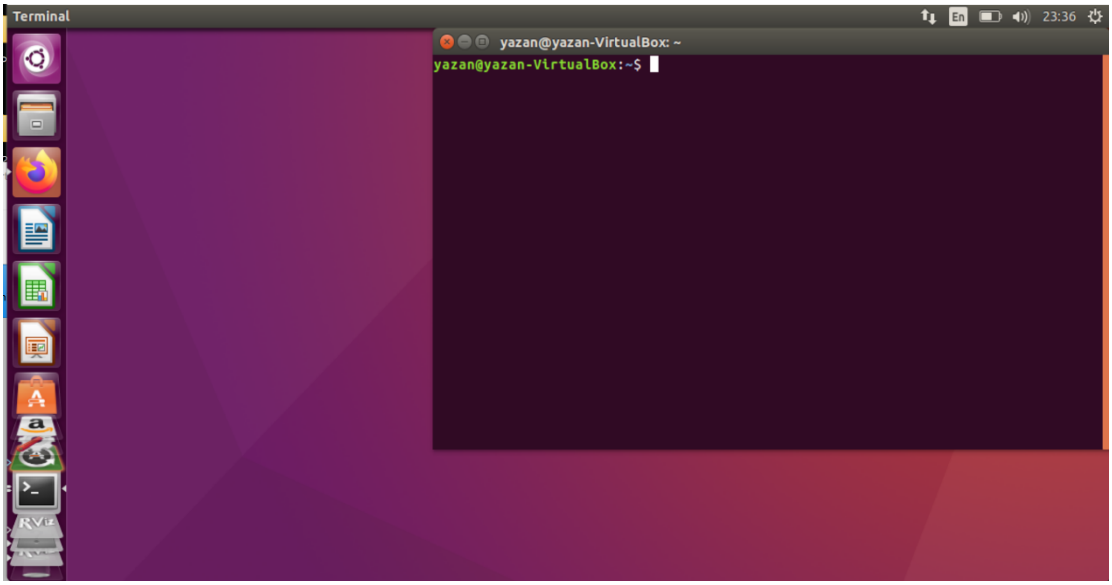


Enter a user name and password to enter the system

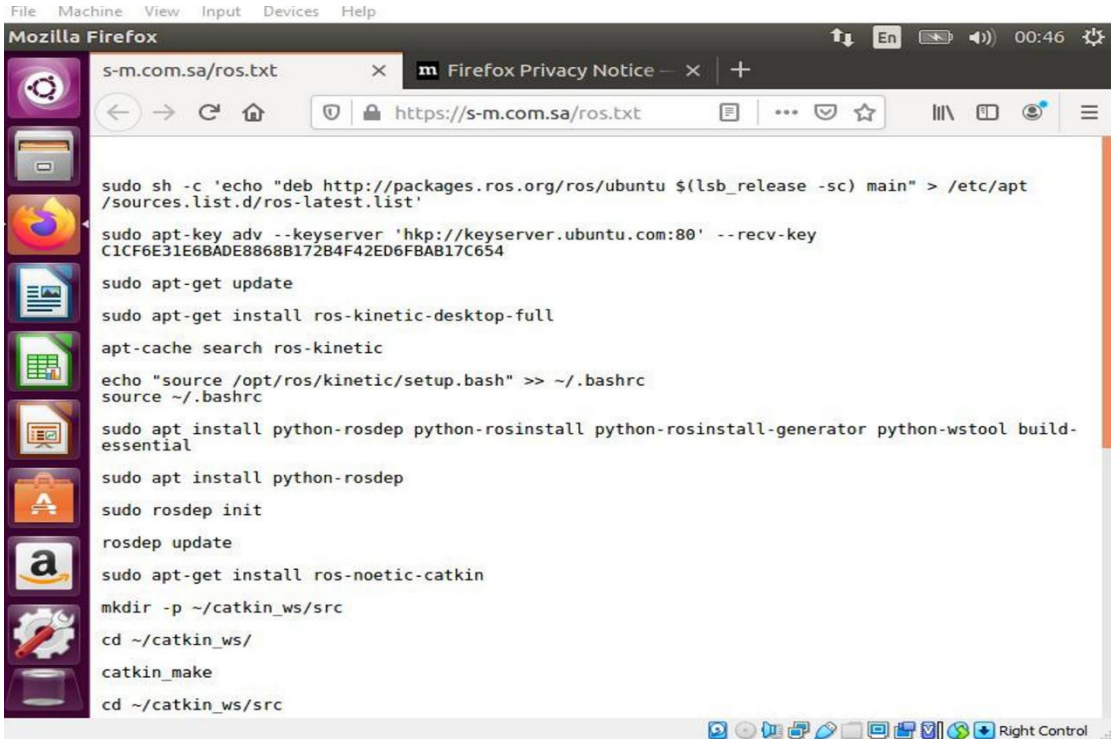


now after the restart we are almost done and we got this desktop but it's a small box, we are going to write a few commands so it fit in the screen like a normal desktop, open the menu and search for "Terminal" from here:





Open the link(https://s-m.com.sa/ros.txt)in Firefox to copy commands:



Open the command page and the terminal page to copy the commands to the terminal, After you finish typing the commands, this page will appear showing that the installation of Ros has completed